

10/531,934
Response to Office Action of April 18, 2006
Via facsimile 571-273-8300
Date of Deposit: July 14, 2006

Attorney Docket Number NL 021052

Remarks

Claims 1-10 and 12-13 remain pending in the application. No amendments are made herein, no new matter has been added, and no new material presented that would necessitate an additional search on the part of the Examiner.

Applicants acknowledge with appreciation that rejection of claims 1-4, 10 and 12 under 35 U.S.C. 102(e) in view of Kim (U.S. Patent Application Publication Number 2002/0117668, filed February 8, 2002) has been withdrawn.

Objections to the Specification

In response to the objection to the specification for failing to include headings, Applicants assert that both 37 C.F.R. 1.77(a) and 37 C.F.R. 1.77(b) state an order of appearance, not a requirement for section headings.

For these reasons, Applicants respectfully request that this objection be withdrawn.

Claims are novel

The Office Action on page 3 rejects claims 1-5, 10, 12 and 13 as being anticipated by Patel et al. (U.S. patent application publication number 2005/0074919, filed June 11, 2002).

Prior to analyzing the art cited in the Office Action, Applicants believe that a brief description of the subject matter of independent claim 1 would be of use to the Examiner.

Claim 1 is directed to a method for manufacturing a micro-electromechanical device. A first electroconductive layer in which a first electrode is formed, a first electroinsulating layer of a first material, a second electroinsulating layer of a second material different from the first material, and a second electroconductive layer in which a second electrode lying opposite the first electrode is formed, are consecutively deposited on a substrate. The second

10/531,934

Attorney Docket Number NL 021052

Response to Office Action of April 18, 2006

Via facsimile 571-273-8300

Date of Deposit: July 14, 2006

electroconductive layer, the second electrode, the first electrode, and the first insulating layer form the device.

After the second conductive layer is deposited, the second insulating layer is removed by means of an etching agent. The etching agent is selective with respect to the material of the second conductive layer, and is characterized in that the first material and the second material are selected materials that can be etched only limitedly selectively with respect to each other. For depositing the second insulating layer on top of the first insulating layer, a further layer is deposited. The further material of the further layer can be etched selectively with respect to the first material.

Applicants show below that the subject matter in the cited reference is not the same as that of pending claim 1.

Patel et al., U.S. patent application publication number 2005/0074919, filed June 11, 2002

Patel shows methods for making microelectromechanical devices on a wafer. See Patel, U.S. patent application number 2005/0074919, ¶ [002] as published. Patel shows a method for manufacturing multiple microelectromechanical systems (MEMS) devices on a wafer, releasing MEMS structures by removing a sacrificial material, bonding a wafer to another wafer, singulating the wafer assembly, and packaging each wafer assembly portion with one or more MEMS devices thereon. Ibid, ¶ [002].

In Patel, a sacrificial layer is deposited on a substrate. Ibid, ¶ [0019] and ¶ [0020]. A lithography step followed by a sacrificial layer etch forms holes in the sacrificial layer. Ibid, ¶ [0020]. Etching is performed down to the substrate or block layer. Ibid, ¶ [0020]. A first layer is deposited by CVD, and the first layer undergoes lithography and etching. Ibid, ¶

10/531,934

Attorney Docket Number NL 021052

Response to Office Action of April 18, 2006

Via facsimile 571-273-8300

Date of Deposit: July 14, 2006

[0021]. A second layer, or "hinge layer", is deposited, followed by a reflective and conductive layer. Ibid, ¶ [0022] and ¶ [0023]. Photoresist patterning on the reflective/conductive layer is followed by etching through the reflective/conductive layer. Ibid, ¶ [0023]. The sacrificial layer is removed to "release" the MEMS structures. Ibid, ¶ [0023].

The present claims are not the same as the cited art

The legal standard for rejection of a claim under 35 U.S.C. §102 is identity.

Patel fails to show a second insulating layer removed by an etching agent that is selective with respect to the material of the second conductive layer, which is the subject matter of Applicants' claim 1.

Further, Patel fails to show a first material and second material that can be etched only limitedly selectively with respect to each other, which is the subject matter of Applicants' claim 1.

Patel also fails to show a further layer deposited of a further material that can be etched selectively with respect to the first material.

Applicants note with appreciation that the Office Action considered allowable the subject matter of claims 6-9 as previously presented, except for dependency on a rejected claim. Applicants assert that, as Patel is not the same as the subject matter of claim 1, this claim is not anticipated by Patel, therefore all of claims 2-10, 12 and 13, that depend directly or indirectly on claim 1, and incorporate all of the subject matter of this claim and contain additional subject matter, also are not anticipated.

10/531,934
Response to Office Action of April 18, 2006
Via facsimile 571-273-8300
Date of Deposit: July 14, 2006

Attorney Docket Number NL 021052

Applicants assert that claims 1-5, 10, 12 and 13 are novel in view of Patel, and respectfully request that this rejection be withdrawn.

Summary

On the basis of the foregoing reasons, Applicants respectfully submit that the pending claims are in condition for allowance, which is respectfully requested.

If there are any questions regarding these remarks, the Examiners are invited and encouraged to contact Applicants' representative at the telephone number provided.

Respectfully submitted,

LAWSON & WEITZEN, LLP



Sonia K. Guterman

Reg. No. 44,729

Attorney for Applicants

Lawson & Weitzen, LLP

88 Black Falcon Ave., Suite 345

Boston, Massachusetts 02110-2481

Tel: (617) 439-4990

Fax: (617) 439-3987

July 14, 2006